



First record of the genus *Caviceps* Malloch (Diptera: Chloropidae: Oscinellinae) from India with description of a new species

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ABSTRACT: Genus *Caviceps* Malloch is recorded for the first time from India and a new species, *C. aristalis* is described. *Dasyopa orientalis* Cherian from India is transferred to genus *Caviceps* with replacement name *Caviceps nartshukae* Cherian as *Caviceps orientalis* is a preoccupied name.

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KEYWORDS: Chloropidae, Tricimbini, *Caviceps*

INTRODUCTION

Caviceps Malloch (1924) is a small genus known by 4 species from the world. Nartshuk (1987) placed this genus under the tribe *Tricimbini*, along with 9 other genera. Ismay (1993) synonymised some of these genera and recognized only 4 of these genera namely, *Aphanotrigonella* Nartshuk, *Aprometopis* Becker, *Siphunculina* Rondani and *Tricimba* Lioy under *Tricimbini* to which he added *Pseudotricimba* erected by him in 1993 and *Tricimbomyia* Cherian (1989). Ismay (1998) synonymised *Aprometopis* with *Strobliola* Czerny and there by recognized 6 genera under *Tricimbini*. Later Ambily and Cherian (2013) added *Indometopis* Cherian to the tribe. However, Ismay without explanation and Cherian inadvertently had left out *Caviceps* Malloch from the list of genera placed earlier by Nartshuk (1987) under the tribe.

The distinct identity of this genus had long been recognised by earlier workers including Sabrosky (1980), Kanmyia (1983) and others, though because

of its rarity it hardly found mention in recent literature. Thus 8 genera are recognized under tribe *Tricimbini*.

While revising species of *Dasyopa* Malloch from the Oriental Region it was realised that *Dasyopa orientalis* Cherian (1990) with its indistinct frontal triangle, broad frons, long arista and other deviating characters, though originally placed with stated reservations under *Dasyopa*, shows closer affinities to the genus *Caviceps* to which it belongs. Hence it is transferred to that genus. Besides, a new species, *Caviceps aristalis* from India is also described. This is the first record of this genus from India.

MATERIAL EXAMINED

The type specimens are retained at present in the collections of the Department of Zoology, University of Kerala, Trivandrum and shall later be transferred to the National Zoological Collections, Western Ghats Regional Centre, Zoological Survey of India, Kozhikode (Calicut).

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The morphology nomenclature is followed after Mc Alpine (1981).

RESULTS AND DISCUSSIONS

Genus *Caviceps* Malloch

1924. *Caviceps* Malloch, *Proc. Linn. Soc. N.S.W.*, **49**: 355.

Type species: *Caviceps flavipes* Malloch. By original designation

Diagnostic characters:

Head much wider than long with wide frons moderately compressed from front to rear; frons hardly produced beyond anterior margin of eye; frontal triangle not developed, only restricted to the small ocellar tubercle; face as high as wide; facial carina reaching lower facial margin as a distinct ridge, forming two deeply concave antennal foveae; basal antennal segments short; *ant* 3 nearly rounded, wider than long; arista slender, as long as head or a little shorter, with short hairs; gena narrower anteriorly, width in the middle less than half that of *ant* 3; vibrissal corner not projecting beyond anterior margin of eye; parafacialia not developed; labella slender, shorter than proboscis; eye fairly large, densely pubescent with nearly oblique long axis; *oc* and *pvt* upright and cruciate; *orb* 8-10 short, reclinate, anterior ones hair-like; *ovt* longer than *ivt*; scutum convex, often with dusty black longitudinal stripes, densely tomentose with short fine hairs; scutellum of *Conioscinella*-type with convex disc and rounded margin; pleura with maculae; *npl* 1+1, 1+2 or 1+3; *h* 1, *pa* 1, *pa* 2 and 1 *dc* well developed; *as* widely separated at base, longer than scutellum; *ss* 1-3; wing hyaline with dark maculae in some species; *R*₂₊₃ long; anal area developed; haltere yellow, abdomen often as wide as thorax; female cerci very long; epandrium small with posteriodorsal notch often not well demarcated; stylus attached to posteroventral aspect of epandrium, pregonite invisible; postgonite well developed; hypandrium open distally.

Distribution: Australian and Oriental Regions.

Key to species of *Caviceps* Malloch from India.

Arista as long as head; hairs on scutum and scutellum yellow; *npl* 1+2; second sector of costa 2x as long as third sector; coxae black to brownish black..... *nartshukae* Cherian

Arista shorter than head; hairs on scutum and scutellum brownish black; *npl* 1+1; second sector of costa less than 2x the third sector; coxae entirely yellow..... *aristalis* sp.n

Caviceps nartshukae Cherian **N. name** (Pl. 1)

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Caviceps nartshukae Cherian (for *Dasyopa orientalis* Cherian). Type locality: India: Tripura: Paratia. **N. name.** *Dasyopa orientalis* Cherian, 1990, *Oriental insects*, **24**: 356-358. (*Caviceps*; preocc. *Caviceps orientalis* (Becker) (= *Aprometopis orientalis* Becker 1924). Type locality: Taiwan: Maruyama.

Diagnostic characters:

Female (Pl. 1): Head nearly as long as high; frons slightly narrowing anteriorly, width half that of head and 0.9x its own length, with dense, short, black *fr*; frontal triangle extremely short, hardly extending beyond black ocellar triangle; facial carina reaching epistomal margin as a low ridge; antennae yellow with dark tinge on upper margin of *ant* 3; arista as long as head, slender with short brownish black hairs; gena yellow, less than half as wide as *ant* 3 with a row of whitish yellow hairs on lower margin; vibrissal corner not projecting beyond eye; eye large, pubescent, with nearly oblique long axis; head bristles black; *orb* about 10, anterior 5 shorter; rest of head bristles as described under the genus; scutum black with short, punctate yellow hairs; three longitudinal lines of punctae, one each along *dc* lines and third in mid longitudinal line, faint; pleura mostly dark brown with yellow tinge in certain areas; scutellum of *Conioscinella*-type, tomentose, pubescent and punctate like scutum; thoracic bristles mostly black; *npl* 1+2; *as* widely separated at base; *as* as long as scutellum; a pair of *prsc* distinct; legs almost whitish yellow but for brownish

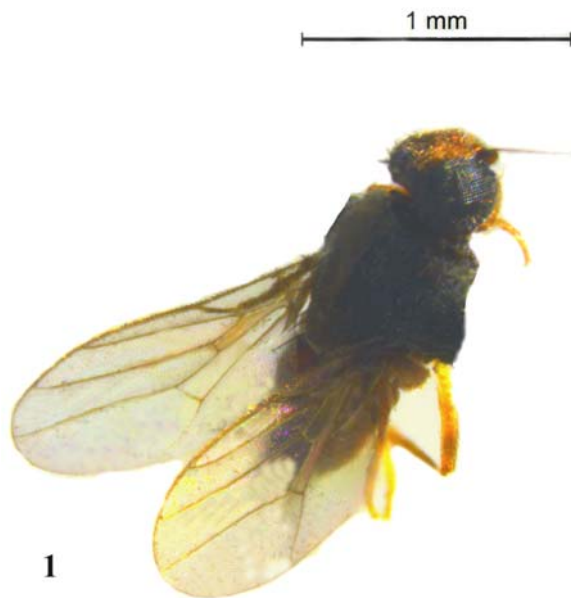
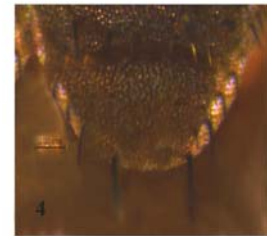
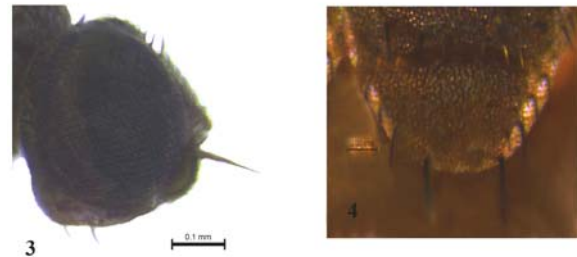


PLATE 1. *Caviceps nartshukae* Cherian:
1- Male fly



PLATES 2-4. *Caviceps aristalis* sp. n.
2- Female fly; 3- head, in profile; 4- wing

tinge on fore tibia and tarsi; tibial organ narrow; wing hyaline with brownish yellow veins; r-m cross vein joining discal cell opposite 0.62 of its length; terminal sector of M_{1+2} slightly convex above in the middle; haltere yellow; abdomen nearly as wide as thorax, basally brownish yellow with dark tinge at sides of second segment and on dorsum of distal segments.

Specimen studied: *Holotype*: Female, India: Tripura: Paratia, 10.x.1977. Coll. N. Muraleedharan (ZSI).

Length: Female 1.38 mm; wing 1.38 mm

Remarks: *C. nartshukae* shows affinities to *C. orientalis* (Becker) but in the former parafacialia is not developed, gena is less than half as wide as *ant* 3, scutum is black, pleura is with black macula only on part of *anepst*, r-m cross-vein joins discal cell far distad of its middle and penultimate section of R_{4+5} is normally developed. But in *orientalis* (Becker) parafacialia is developed, gena is more than half as wide as *ant* 3, scutum is yellow with

four black longitudinal stripes, pleura is with brown maculae on *anepst*, *kepst* and *meron*, r-m cross-vein joins discal cell far basad of its middle and penultimate section of R_{4+5} is extremely short. This species has not been collected since it was originally described.

***Caviceps aristalis* Cherian sp. n. (Plates. 2-4)**

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Female (Pl. 2): *Head* (Pl. 3): Length, height and width ratio 10:11:17. Frons a little widened at vertex and slightly narrowing anteriorly, width at point of widening about half that of head and 0.8x its own length, somewhat rugulose, finely tomentose, dull brownish yellow with fine, dense, punctate short brown *fr*; two lateral corners of frons at vertex dull black and densely tomentose as in *nartshukae* and this colouration extends narrowly along vertex margin; frontal triangle extremely short, almost indistinct as in *nartshukae*, its maximum width less than half that of frons, subshiny black, fairly densely tomentose especially around area of ocellar tubercle, hardly projects beyond anterior ocellus

and ends with obtuse apex; ocellar tubercle black, densely silvery grey tomentose, projecting a little above frontal triangle. Face concave, dull dark brown medially in the area of antennal fovea and yellowish brown along epistomal margin; facial carina running as a triangular ridge between bases of antennae whence continues as a low linear ridge which widens and joins epistomal margin. Basal antennal segments brownish yellow; *ant* 2 with a row of hairs on anterior margin; *ant* 3, 1.4x as wide as long, yellowish brown along lower half of base and part of lower margin and blackish brown in upper half and distal margin; arista a little shorter than head and in *nartshukae*, brownish black with conspicuous concolourous pubescence. Gena brownish yellow, becoming a little infuscated around postgena, gradually becoming narrower anteriorly, width in the middle about one-fourth that of *ant* 3, finely tomentose with a few short hairs; vibrissal corner receding, does not reach anterior margin of eye; postgena brownish around posterior part of gena and infuscated above. Parafacialia not developed. Eye large, densely and conspicuously pubescent with nearly oblique long axis. Palpi slender, yellow with pale hairs; proboscis brownish yellow, labella very short. Head bristles brownish black; *orb* about 10, hair-like, rest of cephalic bristles as in *nartshukae*.

Thorax: Scutum nearly as wide as long, fairly densely tomentose with gently convex blackish brown dorsum bearing fairly dense black to brownish black punctate hairs. Humeral callus yellowish brown. Scutellum (Pl. 4) of *nartshukae* type, width at base 1.5x the length, with gently convex disc which is less convex than in *nartshukae* but is concolourous with and tomentose, punctate and pubescent like scutum. Pleura concolourous with and tomentose like scutum but for diffused yellow tinge covering especially part of *ppl* and *anepst*. Thoracic bristles brownish black; *npl* 1+1; *prsc* short, hardly distinguishable from scutal hairs; other thoracic bristles as in *nartshukae* with basally widely separated *as*, two pairs of *ss* bristles but *as* is 1.3x as long as scutellum and relatively a little longer than in *nartshukae*.

Wing (Pl. 4): 2.15x as long as wide, hyaline with dark brown costa and brown veins; proportions of costal sectors 2- 4 in the ratio 13:7:6; *r-m* cross-vein distad of middle of discal cell, opposite 0.6 of its length; terminal sectors of R4+5 and M1+2 nearly subparallel except that the latter is convex above especially medially and the two diverge a little before joining costa, the latter at apex of wing; anal area moderately developed. Haltere yellow.

Legs: Slender, almost whitish yellow except for dorsum of distal part of midfemur and with diffused brown tinge on tibiae and some tarsi in certain angles of illumination. Tibial organ distinct.

Abdomen: A little longer than wide, subshiny dark brown except for light yellow tinge on dorsum of some basal segments, partly finely tomentose. Ovipositor short, slender dull black, with a few slender hairs.

Length: Femae 1.6 mm; wing 1.4 mm

Holotype: Female: India: Kerala: Trivandrum: Kariavattom, 25 m, 20. xi. 2006, Coll. Jyothi Tilak.

Etymology: The species derives its name from its long arista.

Remarks: *C. aristalis* shows affinities to *nartshukae* Cherian. However in *aristalis* arista though relatively long is a little shorter than head, there are only 1+1 *npl*, hairs on scutum and scutellum are entirely black to brownish black and coxae are yellow. But in *nartshukae* arista is as long as head, there are 1+2 *npl*, hairs on scutum and scutellum are yellow and coxae are entirely black.

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Abbreviations

anepm - anepimeron; *anepst* - anepisternum; *ant* 2 - second antennal segment; *ant* 3 - third antennal segment; *as* - apical scutellar bristle; 1 *dc* - first dorsocentral bristle; *fr* - frontal hair; *h* - humeral bristle; *if* - interfrontal bristle; *ivt* - inner vertical bristle; *kepst* - katepisternum; *npl* - notopleural bristle; *oc* - ocellar bristle; *orb* - fronto-orbital bristle; *ovt* - outer vertical bristle; *pa* - postalar bristle; *ppl* - propluron; *prsc* - prescutellar bristle; *pvt* - postvertical bristle; *ss* - subapical scutellar bristle.

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